

Astronomy

2014-2015

Teacher: Carl Lyon

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Tutorial: Monday and Wednesday

Welcome to Astronomy!

Is Pluto a planet or not? Could there be another planet in our solar system that we haven't discovered yet? What is the relationship between the constellations and mythology? In this semester-long course, we will explore the nature of the planets, the solar system, the galaxy, and the universe. In the first quarter, we will study the origins and development of astronomy throughout history, from ancient to modern times. We will then focus on the origin, dynamics, and physical characteristics of the members of the solar system: the Sun, planets, planetary satellites, meteoroids, asteroids, and comets. In the second quarter, we will expand our focus outward, studying phenomena beyond the solar system such as stars, nebulae, and galaxies, ultimately contemplating the origins of the universe itself. Throughout both quarters, we will be taking an active roll in observing the sky, both through the use of computers and technology as well as on a number of excursions to gaze at the stars.

Text

We will not be using a textbook in this class. Instead, the bulk of our reading will come from online resources and webpages.

Required Supplies

Please bring these to class each day.

Three-ring binder or folder with a section dedicated to Astronomy

Spiral notebook or loose leaf paper for daily notes

Pencils and/or pens (blue/black ink only)

Calculator*

Planner/agenda book

*Astronomy requires a certain amount of math, and students are permitted the use of calculators to aid them in their calculations. They may not use cell phone calculators, and on tests and quizzes, they may not share calculators.

Units of Study

Unit 1: Introduction to Astronomy - Scale and the Celestial Sphere

Interlude 1: Observing the Moon

Unit 2: History of Astronomy

Interlude 2: Observing the Constellations

Unit 3: The Solar System

Interlude 3: Observing the Planets and Beyond

(Unit 4: Beyond Sol - The Rest of the Universe)

Grade Breakdown

15% Homework: Students will be assigned homework regularly. Please review homework policies below.

20% Participation: Students have a chance to earn points per day. These points come from being on time, prepared, attentive and on task. See attached rubric.

20% Labs and Projects: In each unit, students will be conducting observations, both in the actual sky and using computers. The data from such observations will be compiled and analyzed in labs and/or projects.

15% Quizzes: Quizzes will be regular. If a quiz is unannounced, students will be able to use their class notes for the quizzes so their binder should be up to date.

30% Tests: Students will have one test at the end of each unit. Students will receive at least 7 days notice before each test.

The above rubric is an estimation of how your grade will be determined. The instructor reserves the right to take into account other factors such as improvement, effort, and other intangible factors when determining your course grade.

Homework Policy

Students will receive homework each day. Homework is an integral part of the class and prepares students for the next day's work. I will check the homework everyday and award up to five points based on completion.

WLPCS Late Assignments Policy

Daily homework: The point of daily homework is to advance a student's learning through independent practice and/or exploration. Homework and classwork are often intertwined and homework provides the catalyst for a day's lesson. We will therefore not accept late homework; students who turn in completed homework on the day it is due (the degree of completion the province of the teacher) will receive full credit; students who fail to turn in homework on the day it is due will not receive any credit for that daily assignment. Individual teachers will grant exceptions to this policy for illness, significant family events, or anything else a teacher deems worthy of exception.

Long-term projects: Because we take seriously our responsibility to teach students how to manage their time and plan for a long-term project, we take a different approach with anything that requires more than one or two days to complete. Students who complete a long-term project on time are eligible to receive full credit; students who hand in a long-term project one day late can receive no better than a B, and students who turn in a long-term project two days late can receive no better than a C. At the end of the two-day period, teachers may decide to give students partial credit for the work they have done on a project or they may decide to give a student a failing grade. Individual teachers will determine any exceptions for illness, significant family events, etc.

Classroom Conduct

I. BE PUNCTUAL: Tardiness is disruptive and will not be abided. Multiple unexcused tardies will count as an unexcused absence. If arriving late, enter and sit down quietly.

II. BE PREPARED: Bring your notebooks and supplies to class every day and have them ready when class begins. Have your homework out and ready to be handed in at the start of class.

III. BE RESPECTFUL: Of yourself, of your classmates, of your teacher, and of your environment. Everyone has the right to learn. Listen when others are speaking. Name-calling and fighting will not be tolerated.

IV. BE RESPONSIBLE: Do your homework. Study for tests. Make up missed work. Follow directions. You are responsible for your own education.

WLPCS Participation Rubric

CATEGORY	5	4	3	2	1	0
General Interaction	Actively supports, engages and listens to peers (ongoing)	Actively supports, engages and listens to peers (ongoing)	Makes a sincere effort to interest with peers (ongoing)	Limited interaction with peers	Virtually no interaction with peers	No interaction with peers
Preparation/ Materials	Arrives fully prepared at every session	Arrives fully prepared at almost every session	Arrives mostly, if not fully, prepared (ongoing)	Preparation, and therefore level of participation, are both inconsistent	Rarely prepared	Never prepared
Discussion Participation	Plays an active and enthusiastic role in discussions (ongoing)	Plays an active role in discussions (ongoing)	Participates constructively in discussions (ongoing)	Preparation, and therefore level of participation, are both inconsistent	Rarely participates	Never participates
Engagement/ Relevance	Comments advance the level and depth of the dialogue (consistently)	Comments occasionally advance the level and depth of the dialogue	Makes relevant comments based on the assigned material (ongoing)	When prepared, participates constructively in discussions and makes relevant comments based on the assigned material	Comments are generally vague or drawn from outside of the assigned material	Demonstrates a noticeable lack of interest in the material (ongoing)
Contribution to Group Dynamic	Group dynamic and level of discussion are consistently better because of the student's presence	Group dynamic and level of discussion are often better because of the student's presence	Group dynamic and level of discussion are occasionally better (never worse) because of the student's presence	Group dynamic and level of discussion are not affected by the student's presence	Group dynamic and level of discussion are harmed by the student's presence	Group dynamic and level of discussion are significantly harmed by the student's presence

LYON
Astronomy Syllabus
2014-2015

Please sign and date the following, then detach and return this sheet to the teacher.

I have read and accept the rules and procedures set forth for this class for the 2012-2013 school year. I understand the course overview and all rules and policies established in this syllabus. I agree to the terms set herein and accept any consequences should I fail to adhere to the rules of conduct.

Print Student Name

Students Signature

Date

Print Parent/Legal Guardian Name

Parent/Legal Guardian Signature

Date